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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,332	04/12/2006	Michelle Bridget Carrier	PA-00422US1	4243
26723 7590 01/08/2010 LEGAL DEPT., IP GROUP M-I L.L.C. 5950 NORTH COURSE DRIVE HOUSTON, TX 77072				
EXAMINER PHASGE, ARUN S				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
01/08/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@miswaco.com

Office Action Summary

Application No.

10/517,332

Applicant(s)

CARRIER ET AL

Examiner

Arun S. Phasge

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11,13-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GG-6)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date: ____
- 6) ☐ Notice of Informal Patent Application
- 7) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what the initials PV and YP stand for. It is suggested that the whole word(s) be written out in the claims to allow the ordinary artisan to readily ascertain the meaning of the terms used in the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-10, 13-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant, U.S. Patent 4,402,807.

Merchant discloses a method of removing particulate solids from an oil based fluid, wherein the fluid comprises a water-in-oil emulsion, the method comprising: exposing the fluid to an electric field having a strength lower than that required to coalesce the water droplets of the emulsion to electrically migrate particulate solids suspended therein, and collecting the migrated particulate solids to remove them from the fluid, wherein the value of the electric field is less than 100,000 V/m (see col. 14, lines 5-30). The value of the electric field is lower than the value taught by applicants to coalesce the water droplets and would therefore meet the limitations, since otherwise claim 3 would be rejected under section 112.

The voltage and current would always remain proportional to each other as recited in claim 4, because they would follow the formula $V(\text{voltage}) = I(\text{current}) R(\text{resistance})$.

The patent teaches the removal of a variety of particles, including clay and the relative concentration of the clay (see col. 1, lines 25-55). The clay would contain particles such as the claimed "weighting agent particles".

The patent further teaches the step of heating (see col. 10, lines 10-13).

The Merchant patent is silent for the treatment of oil based drilling or completion fluids. The patent however, does teach a variety of different hydrocarbons, which appear to encompass the claimed oil.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Merchant by the teachings contained therein.

One having ordinary skill in the art would have been motivated to do this modification, because the patent teaches the treatment of a variety of different types of hydrocarbon oils, which would render the claimed particular oil obvious.

Claims 11, 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant as applied to claims above, and further in view of Dillon et al. (Dillon), U.S. Patent 2,174,938.

The Merchant patent while teaching the use of settling tanks to remove particulate solids from the fluid fails to teach the use of centrifuge or hydrocyclone as recited in claim 11.

Dillon is cited to show the use of a centrifuge in the removal of solids from hydrocarbon fluids after said fluid has been treated electrically (see page 2, lines 58-74 of column 1).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Merchant by the teachings of Dillon.

One having ordinary skill in the art would have been motivated to do this modification, because the Dillon patent teaches the conventional use of a centrifuge to remove further solids from electrically purified hydrocarbon fluids.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arun S. Phasge/
Primary Examiner, Art Unit 1795

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